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## Scientific and Technical Information Center

## SEARCH REQUEST FORM

mej

Requester's Full Name: Jeffrey E. Russell Examiner #: 62785 Date: June 9, 2005  
 Art Unit: 1654 Phone Number: 2-0969 Serial Number: 10/671,340  
 Location (Bldg/Room#): REN 3019 (Mailbox #): 3C18 Results Format Preferred (circle): PAPER DISK  
 \*\*\*\*\*

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Modified GLP-1 Reptides With Increased Biological Potency  
 Inventors (please provide full names): D. Gravel, K. Ren, T. Atribat, A. Habi

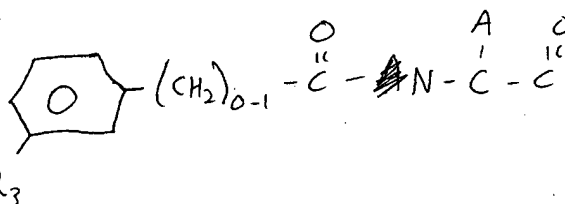
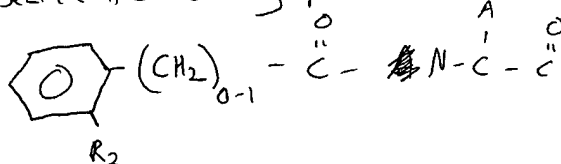
Earliest Priority Date: 9-25-2003

## Search Topic:

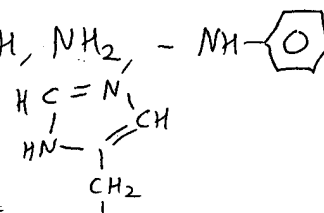
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search the following partial structures



where ~~and~~ R<sub>2</sub> and R<sub>3</sub> are OCH<sub>3</sub>, OCH<sub>2</sub>CH<sub>3</sub>, OH, NH<sub>2</sub>, -NH-C<sub>6</sub>H<sub>4</sub>,  
or halogen.



Please narrow any hits by requiring A to be  
or by using the keywords GLP-1 / glucagon-like peptide-1.

Thank you  
fzk

## STAFF USE ONLY

Searcher: \_\_\_\_\_

Searcher Phone #: \_\_\_\_\_

Searcher Location: \_\_\_\_\_

Date Searcher Picked Up: \_\_\_\_\_

Date Completed: \_\_\_\_\_

Searcher Prep & Review Time: \_\_\_\_\_

Online Time: \_\_\_\_\_

## Type of Search

\_\_\_\_\_ NA Sequence (#)

\_\_\_\_\_ AA Sequence (#)

\_\_\_\_\_ Structure (#)

\_\_\_\_\_ Bibliographic

\_\_\_\_\_ Litigation

\_\_\_\_\_ Fulltext

\_\_\_\_\_ Other

## Vendors and cost where applicable

\_\_\_\_\_ STN \_\_\_\_\_ Dialog

\_\_\_\_\_ Questel/Orbit \_\_\_\_\_ Lexis/Nexis

\_\_\_\_\_ Westlaw \_\_\_\_\_ WWW/Internet

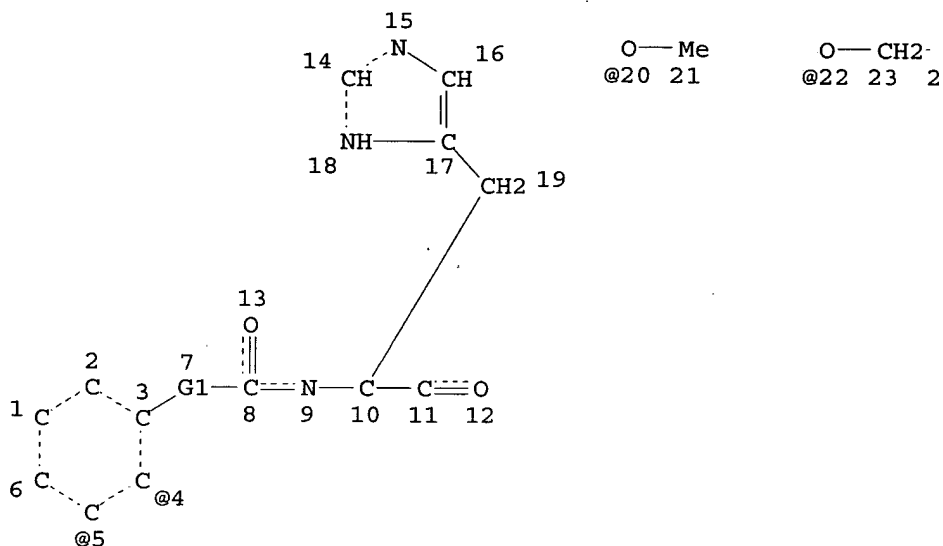
\_\_\_\_\_ In-house sequence systems

\_\_\_\_\_ Commercial \_\_\_\_\_ Oligomer \_\_\_\_\_ Score/Length  
 \_\_\_\_\_ Interference \_\_\_\_\_ SPDI \_\_\_\_\_ Encode/Transl  
 \_\_\_\_\_ Other (specify)

Russel  
10/671340

Page 1

=> d 13 que stat;fil medl,biosis,embase,caplus;s 13  
L1 STR



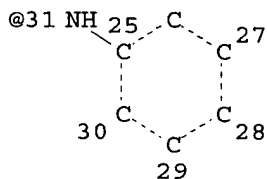
G2 @32

26

Page 1-A

Me  
4

Page 1-B



Page 2-A

REP G1=(0-1) CH2  
VAR G2=20/22/OH/NH2/31  
VPA 32-4/5 U  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 32

STEREO ATTRIBUTES: NONE  
L3 46 SEA FILE=REGISTRY SSS FUL L1

Prepared by: Mary Hale @2-2507 Rem Bldg 1D86

100.0% PROCESSED 83477 ITERATIONS  
SEARCH TIME: 00.00.02

46 ANSWERS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	163.91	164.12

FILE 'MEDLINE' ENTERED AT 11:17:29 ON 22 JUN 2005

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L4	0 FILE MEDLINE
L5	0 FILE BIOSIS
L6	0 FILE EMBASE
L7	33 FILE CAPLUS

TOTAL FOR ALL FILES  
L8 33 L3

=> fil caplus;s l8 and (glp1 or (glucagon like peptide(w)1))

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	5.76	169.88

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FILE COVERS 1907 - 22 Jun 2005 VOL 142 ISS 26  
FILE LAST UPDATED: 21 Jun 2005 (20050621/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

Prepared by: Mary Hale @2-2507 Rem Bldg 1D86

701 GLP1  
23851 GLUCAGON  
103 GLUCAGONS  
23864 GLUCAGON  
    (GLUCAGON OR GLUCAGONS)  
672456 LIKE  
    252 LIKES  
672671 LIKE  
    (LIKE OR LIKES)  
331383 PEPTIDE  
242343 PEPTIDES  
424312 PEPTIDE  
    (PEPTIDE OR PEPTIDES)  
2541 GLUCAGON LIKE PEPTIDE  
    (GLUCAGON(W)LIKE(W)PEPTIDE)  
8306103 1  
    1796 GLUCAGON LIKE PEPTIDE(W)1  
L9        1 L7 AND (GLP1 OR (GLUCAGON LIKE PEPTIDE(W)1))  
  
=> d ibib abs hitstr

L9 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:287858 CAPLUS  
 DOCUMENT NUMBER: 140:298100  
 TITLE: Modified GLP-1 peptides with increased biol. potency in the treatment of glucose metabolism disorders, insulin resistance, and related conditions  
 INVENTOR(S): Gravel, Denis; Peri, Krishna; Abribat, Thierry; Habi, Abdelkrim  
 PATENT ASSIGNEE(S): Theratechnologies Inc., Can.  
 SOURCE: PCT Int. Appl., 47 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004029081	A2	20040408	WO 2003-CA1470	20030925
WO 2004029081	A3	20040722		

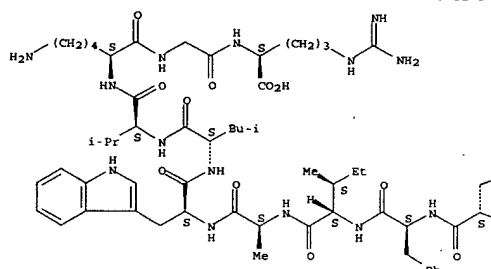
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RM: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, BG, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LJ, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004127412 A1 20040701 US 2003-671340 20030925  
 PRIORITY APPLN. INFO.: US 2002-41317P P 20020925

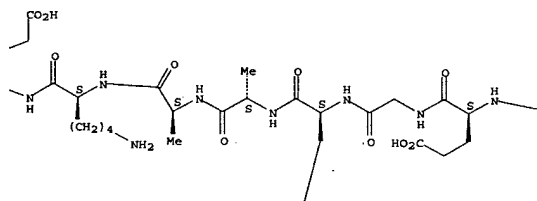
OTHER SOURCE(S): MARPAT 140:298100  
 AB The present invention relates to a GLP-1 peptide having the following formula, or a pharmaceutically acceptable salt thereof:  
 X-His-Ala-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Val-Ser-Ser-Tyr-Leu-Glu-Gly-Gln-Ala-Ala-Lys-Glu-Phe-Ile-Ala-Trp-Leu-Val-Lys-Gly-Arg-Y (SEQ ID NO.1), wherein  
 X is a rigidifying hydrophobic moiety and wherein Y is selected from the group consisting of OH, NH<sub>2</sub> and Gly-OH. Moreover, the present invention relates to pharmaceutical compns. comprising a therapeutically effective amount of a peptide of the present invention, or a pharmaceutically acceptable salt thereof, in association with at least one constituent selected from a pharmaceutically acceptable carrier, diluent, and excipient.  
 IT 676471-19-5 676471-20-8 676471-22-0  
 676471-23-1 676471-25-3 676471-26-4  
 676471-27-5 676471-40-2 676471-41-3  
 676471-42-4 676471-49-1 676471-50-4  
 676471-51-5  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USRES (Uses)  
 (modified GLP-1 peptides with increased biol. potency in the treatment of glucose metabolism disorders, insulin resistance, and related

L9 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)  
 Conditions)  
 RN 676471-19-5 CAPLUS  
 CN L-Arginine, N-(2-ethoxybenzoyl)-L-histidyl-L-alanyl-L-α-glutamylglycyl-L-threonyl-L-phenylalanyl-L-threonyl-L-seryl-L-α-aspartyl-L-valyl-L-seryl-L-seryl-L-tyrosyl-L-leucyl-L-α-glutamylglycyl-L-glutamyl-L-alanyl-L-alanyl-L-lysyl-L-α-glutamyl-L-phenylalanyl-L-isoleucyl-L-alanyl-L-tryptophyl-L-leucyl-L-valyl-L-lysylglycyl- (9CI) (CA INDEX NAME)  
 Absolute stereochemistry.

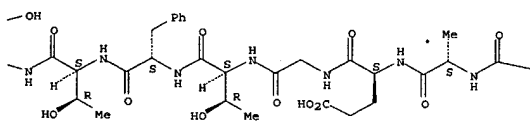


L9 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)  
 PAGE 1-B

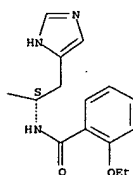
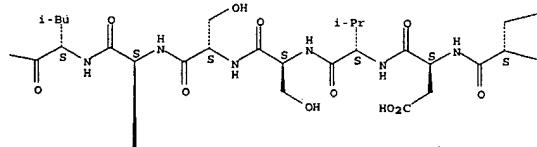
L9 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)  
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PAGE 1-C



PAGE 1-E



Page 17

=> s gravel d?/au;s peri k?/au;s abribat t?/au;s habi a?/au  
L10 108 GRAVEL D?/AU

L11 55 PERI K?/AU

L12 38 ABRIBAT T?/AU

L13 13 HABI A?/AU

=> s l1 and l11 and l12 andl13

**REGISTRY INITIATED**

Substance data SEARCH and crossover from CAS REGISTRY in progress...  
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 11:23:19  
SAMPLE SCREEN SEARCH COMPLETED - 4057 TO ITERATE

24.6% PROCESSED 1000 ITERATIONS 0 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 77321 TO 84959  
PROJECTED ANSWERS: 0 TO 0

L14 0 SEA SSS SAM L1

L15 0 L14

MISSING OPERATOR L12 ANDL13

The search profile that was entered contains terms or  
nested terms that are not separated by a logical operator.

=> s l10 and l11 and l12 andl13

MISSING OPERATOR L12 ANDL13

The search profile that was entered contains terms or  
nested terms that are not separated by a logical operator.

=> s l10 and l11 and l12 and l13  
L16 1 L10 AND L11 AND L12 AND L13

=> d ibib abs

L16 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STM  
ACCESSION NUMBER: 2004:287858 CAPLUS  
DOCUMENT NUMBER: 140:298100  
TITLE: Modified GLP-1 peptides with increased biol. potency  
in the treatment of glucose metabolism disorders,  
insulin resistance, and related conditions  
INVENTOR(S): Gravel, Denis; Peri, Krishna;  
Abribat, Thierry; Habi, Abdelkrim  
PATENT ASSIGNEE(S): Theratechnologies Inc., Can.  
SOURCE: PCT Int. Appl., 47 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004029081	A2	20040408	WO 2003-CA1470	20030925
WO 2004029081	A3	20040722		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, ME, MG, MK, MN, MW, MX, MY, NZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2004127412	A1	20040701	US 2001-671340	20030925
PRIORITY APPLN. INFO.:			US 2002-413171P	P 20020925

OTHER SOURCE(S): MARPAT 140:298100

AB The present invention relates to a GLP-1 peptide having the following formula, or a pharmaceutically acceptable salt thereof:

X-His-Ala-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Val-Ser-Ser-Tyr-Leu-Gly-Gln-Ala-Ala-Lys-Glu-Phe-Ile-Ala-Trp-Leu-Val-Lys-Gly-Arg-Y (SEQ ID NO.1), wherein

X is a rigidifying hydrophobic moiety and wherein Y is selected from the group consisting of OH, NH<sub>2</sub> and Gly-OH. Moreover, the present invention relates to pharmaceutical compns. comprising a therapeutically effective amount of a peptide of the present invention, or a pharmaceutically acceptable salt thereof, in association with at least one constituent selected from a pharmaceutically acceptable carrier, diluent, and excipient.

=> fil medl,biosis,embase;s l16

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	3.10	198.51
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-0.73	-1.46

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L17 0 FILE MEDLINE  
L18 0 FILE BIOSIS  
L19 0 FILE EMBASE

TOTAL FOR ALL FILES

L20 0 L16

=> s (glp1 or (glucagon like peptide(w)1))

L21 1645 FILE MEDLINE  
L22 2143 FILE BIOSIS  
L23 1982 FILE EMBASE

TOTAL FOR ALL FILES

L24 5770 (GLP1 OR (GLUCAGON LIKE PEPTIDE(W) 1))

=> s (l10 and l11 and l12 and l13) and l24

L25 0 FILE MEDLINE  
L26 0 FILE BIOSIS  
L27 0 FILE EMBASE

TOTAL FOR ALL FILES

L28 0 (L10 AND L11 AND L12 AND L13) AND L24

=> del his y

=> fil reg

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FULL ESTIMATED COST	2.55	201.06
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	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.46

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*****  
*  
* The CA roles and document type information have been removed from *  
* the IDE default display format and the ED field has been added, *  
* effective March 20, 2005. A new display format, IDERL, is now *  
* available and contains the CA role and document type information. *  
*  
*****
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Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

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